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Translation

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference B22748 SZ/VS	FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. PCT/FR2004/000827	International filing date (day/month/year) 01.04.2004	Priority date (day/month/year) 02.04.2003
International Patent Classification (IPC) or national classification and IPC		
Applicant NESTLE WATERS MANAGEMENT & TECHNOLOGY (Société Anonyme)		
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 13 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> (sent to the applicant and to the International Bureau) a total of _____ sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>		
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the report</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input checked="" type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input checked="" type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input checked="" type="checkbox"/> Box No. VIII Certain observations on the international application</p>		
Date of submission of the demand	Date of completion of this report	
Name and mailing address of the IPEA/EP	Authorized officer	
Facsimile No.	Telephone No.	

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Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

- ☐ This report is based on translations from the original language into the following language _____, which is the language of a translation furnished for the purposes of:
- ☐ international search (Rule 12.3 and 23.1(b))
 - ☐ publication of the international application (Rule 12.4)
 - ☐ international preliminary examination (Rule 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):

- ☐ the international application as originally filed/furnished
- ☒ the description:

pages 1-23 as originally filed/furnished

pages* _____ received by this Authority on _____

pages* _____ received by this Authority on _____

- ☒ the claims:

nos. 1-31 as originally filed/furnished

nos.* _____ as amended (together with any statement) under Article 19

nos.* _____ received by this Authority on _____

nos.* _____ received by this Authority on _____

- ☒ the drawings:

sheets 1/16-16/16 as originally filed/furnished

sheets* _____ received by this Authority on _____

sheets* _____ received by this Authority on _____

- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

☐ the description, pages _____

☐ the claims, nos. _____

☐ the drawings, sheets/figs _____

☐ the sequence listing (*specify*): _____

☐ any table(s) related to sequence listing (*specify*): _____

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

☐ the description, pages _____

☐ the claims, nos. _____

☐ the drawings, sheets/figs _____

☐ the sequence listing (*specify*): _____

☐ any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

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Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been examined in respect of:

☐ the entire international application

☒ claims Nos. 15-29

because:

☐ the said international application, or the said claims Nos. _____
relate to the following subject matter which does not require an international preliminary examination (*specify*):

☐ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. _____
are so unclear that no meaningful opinion could be formed (*specify*):

☐ the claims, or said claims Nos. _____ are so inadequately supported
by the description that no meaningful opinion could be formed.

☒ no international search report has been established for said claims Nos. 15-29

☐ the nucleotide and/or amino acid sequence listing does not comply with the standard provided for in Annex C of the Administrative Instructions in that:

the written form

☐ has not been furnished

☐ does not comply with the standard

the computer readable form

☐ has not been furnished

☐ does not comply with the standard

☐ the tables related to the nucleotide and/or amino acid sequence listing, if in computer readable form only, do not comply with the technical requirements provided for in Annex C-bis of the Administrative Instructions.

☐ See Supplemental Box for further details.

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Box No. IV Lack of unity of invention

1. ☒ In response to the invitation to restrict or pay additional fees the applicant has:
 - ☐ restricted the claims.
 - ☐ paid additional fees.
 - ☐ paid additional fees under protest.
 - ☒ neither restricted the claims nor paid additional fees.
2. ☐ This Authority found that the requirement of unity of invention is not complied with and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees.
3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is:
 - ☐ complied with.
 - ☒ not complied with for the following reasons:

(see additional sheet)

4. Consequently, this report has been established in respect of the following parts of the international application:
 - ☐ all parts.
 - ☒ the parts relating to claims Nos. 1-14, 30, 31

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Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement		
1. Statement			
Novelty (N)	Claims	4, 14, 30, 31	YES
	Claims	1-3, 5-13	NO
Inventive step (IS)	Claims	4	YES
	Claims	1-3, 5-14, 30, 31	NO
Industrial applicability (IA)	Claims	1-14, 30, 31	YES
	Claims		NO
2. Citations and explanations (Rule 70.7)			
<p>1. In the present report, reference is made to the following documents:</p> <p>D1: US 2002/066680 A1 (SJOBERG ELISABETH ET AL) 6 June 2002 (2002-06-06)</p> <p>D2: PATENT ABSTRACTS OF JAPAN vol. 2000, no. 11, 3 January 2001 (2001-01-03) - & JP 2000 217885 A (FUKOKU CO LTD), 8 August 2000 (2000-08-08)</p>			
2. INDEPENDENT CLAIMS			
<p>2.1 Claim 1 fails to meet the requirements of PCT Article 33(1), since the subject matter thereof does not comply with the criterion of novelty as defined by PCT Article 33(2).</p> <p>D1 describes (cf. paragraph [003] to paragraph [0045] and figures 1 to 10) a leak-tight capsule, which essentially consists of a deformable membrane (21) sealed at its base by a pierceable seal (26) thereby defining a leak-tight space (25) for containing at least one substance (18) between said deformable membrane (21) and said pierceable seal (26); said capsule has at least one built-in breaking means for tearing said pierceable seal (26) thereby releasing an</p>			

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Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

effective amount of substance(s) (18) subsequent to said deformable membrane (21) being sufficiently deformed by an external mechanical stress applied thereto; said capsule includes at least one intermediate part (28) provided between said deformable membrane (21) and said seal (26); said intermediate part (28) has at least one breaking means (32) actuatable by sufficiently deforming said deformable membrane (21) thereby breaking same; said intermediate part (28) is made in the form of a peripheral ring (34) locally supporting, by means of a hinging portion, an arched element (30) which substantially and at least locally matches the shape of the deformable membrane (21) in its initial state and of which the free end is in the form of at least one projecting or pointed element (32) directed towards the seal (26); said arched element (30) is provided with a bearing surface capable of transmitting an external mechanical stress, applied to said deformable membrane (21) by the user, sufficient to cause the projecting end element(s) (32) to tilt, thereby breaking the seal (26) and releasing an effective amount of substance(s) (18).

Consequently, all the technical features of claim 1 are known.

- 2.2 Claim 14 fails to meet the requirements of PCT Article 33(1), since the subject matter thereof does not involve an inventive step as defined by PCT Article 33(3).

D2 describes (cf. abstract and figures 1 to 5) a stopper for a necked liquid dispensing container, which

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	<p>stopper essentially consists of a seat (8) intended to be attached to said container (6) for closing same by means of a capsule (1) sealingly affixed to said seat (8); the deformable membrane (2) of said capsule (1) is itself covered by a rigid protective cap (12) resting on a ring-shaped base part (11) affixed to said seat (8); the bottom of said capsule (1) consists of the pierceable seal (16, 17); a leak-tight useable space filled with at least one substance (3) intended to be added to the contents of the container (6) prior to consumption is thus defined between the deformable membrane (2) and said seal (16, 17) of said capsule (1); an effective amount of substance(s) is released into the contents of the container (6) when a sufficient deformation of the deformable membrane causes the seal (16, 17) to break.</p> <p>Consequently, the subject matter of claim 14 differs from this known stopper in that said capsule has all the features of claim 1.</p> <p>However, these features have already been used for the same purpose in an equivalent capsule (see D1, figures 1 to 10). It is obvious for a person skilled in the art to apply these features, with a corresponding effect, in a capsule according to D2 and thereby obtain a stopper according to claim 14.</p> <p>2.3 For the same reasons as mentioned above, the subject matter of claims 30 or 31 does not involve an inventive step, as defined by PCT Article 33(3), either.</p>

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Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
3.	DEPENDENT CLAIMS
3.1	The subject matter of claims 2, 3 and 5 to 13 does not meet the requirement of novelty, as defined by PCT Article 33(2), because all the technical features are known from D1 (cf. paragraphs [0003] to [0045] and figures 1 to 10).
3.2	The combination of features of claim 4 (interpreted as indicated in Box VIII) is not found in the prior art and cannot be derived in an obvious manner therefrom. Consequently, claim 4 meets the requirements of PCT Article 33(1), since the subject matter thereof complies with the criterion of novelty, as defined by PCT Article 33(2) and involves an inventive step, as defined by PCT Article 33(3).

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Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

1. Interpretation of claim 4

The additional feature of claim 4 is optional ("may be provided with"). However, given that a dependent claim that has only one optional feature (and no compulsory feature) is meaningless unless said optional feature is compulsory, said additional feature of claim 4 is considered to be a compulsory feature ("is provided with").

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of: **Box IV**

1. The present application fails to meet the requirements of PCT Article 13, since it relates to a plurality of inventions that are not so mutually linked as to form a single general inventive concept.

1.1 The various inventions are as follows:

- I Claims 1 to 14, 30 and 31
Capsule consisting of a membrane, a seal, a breaking means and an intermediate part, characterised by a frangible bridge. Stopper and container including such a capsule.
- II Claim 15
Stopper including a seat, a base part, a cap and a capsule, characterised by at least one meridian notch in the cap.
- III Claims 16 to 21
Stopper including a seat, a base part, a cap and a capsule, characterised by a ring-shaped rim and a ring-shaped throat of the seat and a circular rim of the base part.
- IV Claims 22 to 25
Stopper including a seat, a base part, a cap and a capsule, characterised by interacting means of the base part and the cap.
- V Claim 26
Stopper including a seat, a base part, a cap and a capsule, characterised by a security ring.

Supplemental Box

VI Claim 27

Stopper including a seat, a base part, a cap and a capsule, characterised by a tamper-evident device.

VII Claim 28

Stopper including a seat, a base part, a cap and a capsule, characterised in that the cap and the deformable membrane are made of one or more translucent materials.

VIII Claim 29

Stopper including a seat, a base part, a cap and a capsule, characterised by at least one tooth-shaped element of the shoulder of the seat.

1.2 The reasons for which the present application relates to these various inventions not so mutually linked as to form a single general inventive concept, as required by PCT Rule 13.1, are as follows;

- (a) The common concept linking inventions I to VIII is a capsule according to claim 1. This common concept is not novel (cf. D1, figures 1 to 10). Consequently, the features of claim 1 cannot be considered to be specific technical features.

Furthermore, a stopper according to claims 14 and 16 does not involve an inventive step, because it would be obvious for a person skilled in the art to combine the teaching of D1 and D2, since said documents describe in combination all the features of claims 14 and 16. Consequently, the features of these claims

Supplemental Box

cannot be considered to be special technical features.

- (b) The other features of inventions I to VIII solve different problems, since said features are not corresponding special technical features.

The problem that invention I is intended to solve can be considered to be that of securing the breaking means until the stopper is effectively used. The solution is a frangible bridge (claim 4).

The problem that invention II is intended to solve can be considered to be that of making the protective cap easier to mount. The solution is at least one meridian notch of the cap (claim 15).

The problem that invention III is intended to solve can be considered to be that of reinforcing the upper seal between deformable membrane and the seat. The solution is a ring-shaped rim and a ring-shaped throat of the seat (claim 18) and a circular rim of the base part (claim 20).

The problem that the invention IV is intended to solve can be considered to be that of providing means for opening and closing the protective cap. The solution consists of interacting means of the base part and the cap intended to engage mutually by elastic deformation (claims 22 to 25).

The problem that invention V is intended to solve can be considered to be that of ensuring that the seat has never been unscrewed from the neck of the container. The solution is a security ring (claim 26).

Supplemental Box

The problem that invention VI is intended to solve can be considered to be that of providing a means for indicating that the cap has been opened. The solution is a tamper-evident device on a means participating in the locking of the cap (claim 27).

The problem that invention VII is intended to solve can be considered to be that of enabling the user to check the presence of substance S prior to use. The solution is making the cap and the deformable membrane of one or more translucent materials (claim 28).

The problem that invention VIII is intended to solve can be considered to be that of making the pierceable seal easier to break. The solution is a tooth-shaped element of the shoulder of the seat (claim 29).

The above analysis shows that neither the special technical features of the invention groups nor the objective problems to be solved by said inventions are identical or corresponding, and that no general inventive concept links the invention groups.